

Date: April 6, 2015
To: Thomas J. Bonfield, City Manager
Through: W. Bowman Ferguson, Deputy City Manager
From: Donald F. Greeley, Director, Department of Water Management
Subject: SR-59 Chemical Control of Sanitary Sewer Root Intrusion
Award of Service Contract

Executive Summary:

The Department received two proposals for Contract SR-59, Chemical Control of Sanitary Sewer Root Intrusion. The work consists of utilizing herbicide-based chemicals to kill and control regrowth of tree roots in sewer lines which can cause blockages. Based on review of the proposals, the Department recommends that the City enter into a contract with Municipal Sales, Inc. The contract will be for a 2-year period, with the option of renewing for up to two 1-year extensions.

Recommendation:

The Department of Water Management recommends that the City Council:

1. Authorize the City Manager to execute a service contract with Municipal Sales, Inc. for SR-59 Chemical Control of Sanitary Sewer Root Intrusion services for a contract cost not to exceed \$94,128.00.

Background:

Root intrusion into the sanitary sewer system often leads to the collection of grease and debris. This in turn can lead to accumulations and blockages of sewerage which often result in sanitary sewer overflows. As trees and foliage grow, roots seek water sources and penetrate loose-fitting joints of brick manholes and older, clay sewer mains and service lines. Often, the connection point between the service line and the main is also in poor condition, providing another location for root intrusion.

The City's Sanitary Sewer Rehabilitation Program contracts for chemical control of root intrusion. This widely accepted industry practice utilizes herbicide-based chemicals to kill the roots in and around the pipe. It involves applying herbicide solution/foam that is drawn up into the roots penetrating the sewer system. Uptake from the roots carries the herbicide to areas just outside the pipe, but has no effect on the foliage itself. The roots are killed and the herbicide discourages the root from regrowth towards the sewer main. The application through a foam-applying nozzle is non-intrusive and can be done with no bypassing of sewage. The herbicide is drawn up into the roots and over a period of 4-6 months, the roots

will die and fall into the sewage flow. The chemicals used are formulated to have no detrimental effect on the biology of the waste in the sewers or at the treatment plant.

This method of root control eliminates the use of manual root cleaning, which requires inserting cutting equipment inside the pipe, which can cause structural damage, and also discourages root regrowth, which cannot be accomplished with manual cutting. It is required that the contractor be licensed by the North Carolina Department of Agriculture and Consumer Services (NCDACS) as a pesticide-application business, and with the Federal Department of Transportation. DWM have identified over 290 locations City-wide where root problems may exist and have included these sites in this project.

Issues and Analysis:

The Department received two proposals for the contemplated work. The two submitters and their 2-year contract period costs are as follows:

Dukes Root Control, Inc.	\$134,100.00
Municipal Sales, Inc.	\$94,128.00

This proposed cost is based on treating approximately 90,000 feet of various sized sewers in two years. In addition to cost, other criteria considered included chemical compatibility with City's sewers and treatment plants, length of product guarantee, constraints on pre- or post-maintenance in sewers, and references from other municipal end-users. From this analysis, DWM feels that both providers and their respective chemicals would perform well.

As the department issues work orders, we will undertake careful inspection of pre and post treatment conditions and the effectiveness of the chemical. To accomplish this, we will identify 10-20% of the locations to be treated and inspect the amount and density of root growth just prior to treating. After treatment, the City will make periodic inspection of the same sites, to evaluate the effectiveness. The frequency of follow-up inspection will generally be after 6, 12 and 24 months.

Alternatives:

One alternative would be to not move forward with the project. The identified sewer lines have been inspected and root intrusion is an existing problem. Failing to move forward with the project may lead to sanitary sewer overflows (SSOs) and environmental damage. This alternative could potentially put the City in violation of its sewer collection permit which would lead to City receiving Notices of Violation (NOVs) and fines by the State.

Financial Impacts:

Funds for this project were approved in the Capital Improvements Program Sewer Collection System Rehabilitation. There are currently funds available for this project from 4100P002-723600-P28AA.

SDBE SUMMARY:

The Equal Opportunity/Equity Assurance Department reviewed the proposals submitted by Municipal Sales, Inc., Queensbury, NY and of Duke's Root Control, Inc., Syracuse, NY and has determined that they are both in compliance with the Ordinance to Promote Equal Business Opportunities in City contracting.

SDBE REQUIREMENTS

There are no goals for this project. Workforce statistics for Municipal Sales, Inc., Queensbury, NY are as follows:

Total Workforce	7	
Total Females	1	16%
Total Males	6	84%
Black Males	0	0%
White Males	6	84%
Other Males	0	0%
Black Females	0	0%
White Females	1	16%
Other Females	0	0%